DMAP Newsletter

Volume 4, Issue 2 Louisiana Department of Wildlife and Fisheries September 2001

By Donald "Duck" Locascio, Jr.
Region 4 Wildlife Forester

DMAP

DMAP 20-Years Old (1981-2001)

By Larry Savage, DMAP Coordinator

In the late-1970's, LDWF biologists recognized a ground-swell interest in the intensive management of deer on private lands (82% of LA's deer habitat). Parish either-sex seasons were the primary LDWF tool used to balance deer populations over large areas. These seasons were conservative in many cases and publicly unpopular in many areas.

The heart and soul of deer management is the controlled harvest of females. No programs were available, at that time, to allow individual landowners/clubs the latitude of customizing their deer harvest, particularly those with low hunting pressure and high deer numbers. It was difficult, if not impossible, to legally harvest enough females using "doe-days" to accomplish desired management goals (improving deer health, reducing habitat damage, or increasing buck age structure).

In 1981 LDWF initiated a statewide program called Intensive Deer Management to provide technical assistance to landowners/clubs. This voluntary program provided a vehicle for interested landowners and LDWF biologists (with 40 years of hands-on deer management experience) to work together. **Due to landowner/club interest this program took off** (see "*Landowner Support"* below for details). With only one minor speed bump (institution of DMAP fees in 1990) along the way, DMAP enrollment increased until 1997. DMAP participation the past four years appears to be stabilizing at about 2.5 million acres --- roughly 15% of the state's deer habitat (see pie chart).

The popularity of DMAP, a volunteer program with fees, indicates that it was the right program at the right time. Many of the other 15 southeastern states provide similar private-land programs that are also very popular with motivated deer managers.

DMAP has been mutually beneficial. DMAP cooperators have provided LDWF with many opportunities:

- Wildlife professionals are placed in contact with landowners/clubs interested in wise management of wildlife and habitat resources, opening a direct line of communication.
- Hard-working DMAP hunters have provided LDWF with management data on 478,654 deer that would have been otherwise impossible to obtain. These data along with WMA information are used to develop detailed management recommendations for each of the State's nine basic deer habitat types.
- Biologists have the opportunity to conduct habitat surveys in all the State's habitats.

LDWF has attempted to provided DMAP cooperators with:

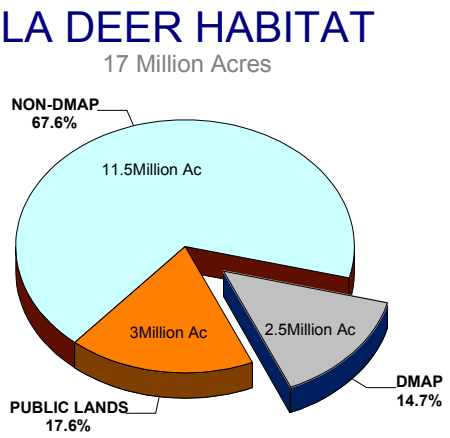
- Professional technical assistance and the flexibility (DMAP antlerless tags) to achieve deer management goals based on the desires of landowners/clubs.
- Provide information and guidance that allows cooperators to learn more about deer and habitat management.
- Improve the recreational enjoyment of the State's deer resources.
- Provide a means for population reduction to prevent unwanted browse damage.

Also, by practicing sound deer management, DMAP cooperators provide help to many unsuspecting Louisiana citizens.

- Proper ecological balance between deer and habitat benefits many wildlife species including birds, small mammals, reptiles and amphibians.
- Reduced vehicle deer collisions on LA highways and airports
- Reduced damage to crops and forest regeneration.

What's in the future for DMAP? Profound changes in deer hunters and deer management occurred in the last 20 years. The same magnitude of change is expected in the next 20 years, driven by the increasing enthusiasm for white-tailed deer

and intensive deer management. LDWF will conduct mail surveys in October 2001, to access desires, expectations and perceptions of current DMAP cooperators. Deer harvest trends the last 10 years suggest quality buck management is the direction increasing numbers of cooperators want to go. This is illustrated not only by the selection of management objectives (DMAP application), but also by actions – increased doe harvest and more selective buck harvest (see DMAP Harvest 2000). LDWF's professional biologist will continue to assist current and future DMAP cooperators with the development of realistic management expectations (based on the natural productivity of LA's habitats) and with the implementation of practical deer management plans based on sound biology.



****

Landowner Support Ensures DMAP Success

By David Moreland, Deer Program Manager

Following a summer deer collection in 1978, I met with John D. Newsom in his office on the LSU campus. Mr. Newsom, or John D., as he was commonly called, was in charge of the Cooperative Wildlife Research Unit in the School of Forestry and Wildlife. Mr. Newsom had previously worked many years for the Wildlife and Fisheries Commission and was actively involved with the state=s deer management program. One of our topics of discussion was the idea of a program that would allow landowners the opportunity to achieve a higher antlerless deer harvest than what could be achieved by just using doe days. In the fall of 1979 such an experimental program was developed by LSU and tested on the Lottie Wildlife Protective Association in Pointe Coupee Parish. In 1980 the program was tried again on Lottie and on Beechgrove Plantation in East Feliciana Parish. As District Supervisor of Region 7 (Florida Parishes), I had the opportunity to work firsthand with this program. In 1981 the program was initiated across the state and was called the Intensive Deer Management Program. Later, as the program developed, the name was changed to Deer Management Assistance Program (DMAP).

Mr. John W. Barton, a prominent Baton Rouge businessman, sportsman, and civic leader, is the owner of Beechgrove Plantation and one of the founders of the Lottie Wildlife Protective Association. Both Beechgrove and Lottie have been enrolled in the program since 1981. Mr. Barton has generously allowed deer biologists access to these properties for deer research and management studies. Both areas have been quite successful with their deer management programs. Since the 1980 season, there have been 3,009 does harvested from Beechgrove Plantation. If one assumes an average doe weight of 90 pounds, the mixed pine/hardwood forest on Beechgrove has produced 135 tons of venison. The present doe harvest of one per 36 acres is one of the highest in the state and is an example of what can be achieved through a sound deer management program that includes management of the herd and the forested habitat.

Mr. Barton=s contribution to the deer management program over the past 21 years has been one of the reasons for DMAP being so successful. His willingness to cooperate with biologists on research and management studies has provided the Department with important biological data for management of the state=s deer herd. Studies done on Beechgrove include determination of breeding season dates, scraping and rubbing activity of bucks, disease and parasite studies, and most recently, Mr. Barton allowed the Department access to Beechgrove for a rabbit parasite study.

This cooperation and willingness of Mr. Barton is not new to the Department. In 1982 the Wildlife and Fisheries Commission recognized Mr. Barton

for his outstanding contribution toward the restoration of the wild turkey in Louisiana. With this type of landowner support, the deer program in this state will continue to be a success. We thank Mr. Barton, along with several other landowners, who have supported this Department and the deer program for the past twenty years.

****

DMAP Charter Membership

By Larry Savage, DMAP Coordinator

In 1981 a total of 129 clubs/landowners joined a fledgling LDWF program called Intensive Deer Management. A lot of water has gone under the bridge since then-- land-use changes, habitat changes, and changes in deer hunters' attitudes and deer savvy. DMAP membership changes every year with about a 15% turnover rate as new and old cooperators come and go from the program.

One thing that has been constant is the pursuit of sound deer herd management by one group of DMAP cooperators, the Charter members. Properly done, deer management is a long-term commitment, and this group has been tenacious. A partial list of the Charter DMAP Members that joined the program in 1981 and have participated continuously for the last 20 years is provided. This represents a minimum of almost 30% of the original clubs.

Region 1- Minden

1.	Palmer/Hebert/CPR	Webster

Region 2 – Monroe

1.	Bosco Fine Arts Society	Ouachita

Region 4 – Ferriday

1.	Cotton Wood HC	Concordia
2.	Lone Bluff HC	Caldwell
3.	Crawford HC	Catahoula
4.	Bucknutz HC	Concordia
5.	Thomas Wildlife HC	Concordia
6.	Paw Paw HC	Madison
7.	Caster Creek Head Hunters HC	Caldwell
8.	Donald HC	Madison
9.	White Oak HC	Tensas
10.	Winter Quarters HC	Tensas
11.	ToGo HC	Tensas
12.	Big Ten HC	Concordia
13.	Blackhawk Plantation	Concordia
14.	Womack HC	Concordia

Region 5 – Lake Charles

1.	Old Hickory Jack HC	Calcasieu
2.	Beaver Creek HC	Evangeline
3.	Pettit Lease	Vermillion
4.	Gertrude HC	Vermilion

Region 6 – Opelousas

1.	Red Diamond HC	Iberville
2.	R.H. Miller HC	Iberville
3.	Briar Patch HC	Iberville
4.	Deer Lake HC	Iberville
5.	Lottie Wildl. Assoc.	Pointe Coupee
6.	High Chaparral HC	Pointe Coupee
7.	Balley Hack HC	Pointe Coupee
8.	Ramsey Plantation	Pointe Coupee
9.	RAL HC	St. Martin
10.	Choctaw HC	W. Baton Rouge
11.	Baist HC	W. Baton Rouge
12.	Grand Bayou HC	W. Baton Rouge
13.	Raccourci Island (orig. Rex&Tina HC)	W. Feliciana

Region 7 – Baton Rouge

1.	Beechgrove Plantation	E. Feliciana
2.	Zemurray Park	Tangipahoa

Due to LDWF personnel changes and DMAP records' archiving, some charter members may have been overlooked. Please contact Larry Savage (225/765-2308) if you've been missed.

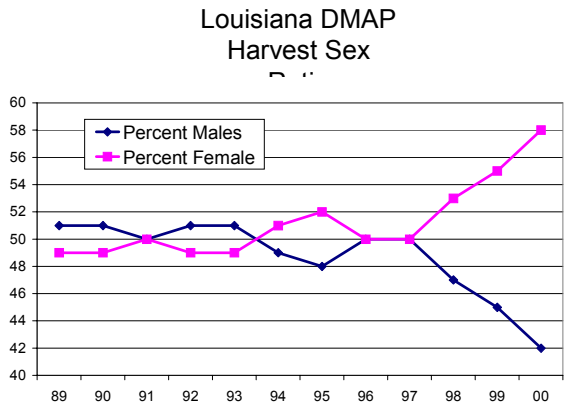
****

DMAP Harvest 2000 - 2001

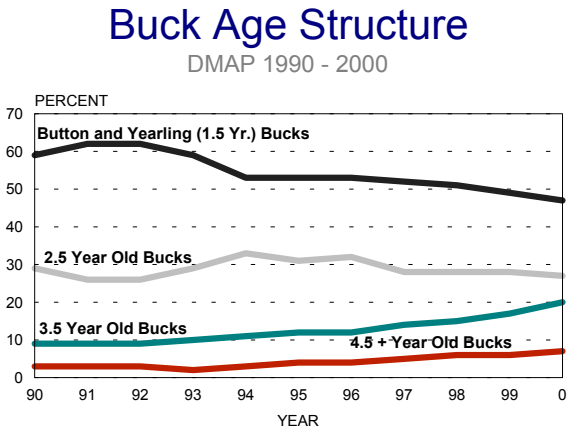
By Larry Savage, LDWF DMAP Coordinator

The 2000-2001 DMAP deer harvest was remarkably similar to last year's. Cooperators (1,335) reported harvesting 30,073 deer from 2,559,342 DMAP acres. This is a total harvest rate of one deer per 85 acres (identical to 1999). The highest reported harvest rate was 1 / 80 acres. Above average harvest rates the last two years are

driven by the increased harvest of does, demonstrating that DMAP participants are interested in sound deer management; i.e., working towards the goal of balancing the sex ratios within their deer herds. This year's harvest sex ratio was 58% females and 42% males. This female proportion of the harvest was the highest ever recorded in the program.



The 2000 female harvest rate (1 female/147 acres) was above the 1990-1999 average while male harvest rate was about average (1 male/203acres). The harvest trend indicates that DMAP cooperators are increasingly practicing quality buck management on voluntary bases by harvesting more does while limiting the harvest of young bucks. The harvest of young bucks (6 months & 1.5 yrs.) continues to decline. Bucks 2.5 years old have been harvested at a fairly stable rate while an increase in the percentage of 3.5 years and older bucks is evident.



Corbett Hunting Club, Avoyelles Parish, 2000-2001

****

New Regulations for 2001 - 2002

Muzzleloader Scopes – During the special muzzleloader segments of the 2001 – 2002 deer season, muzzleloader rifles may be fitted with magnified scope for the first time.

Tracking Dogs – Except in wildlife management areas, a leashed dog may be used to trail and retrieve wounded or unrecovered deer during legal hunting hours. Any dog used to trail or retrieve wounded or unrecovered deer shall have on a collar with owner's name, address, and phone number. In addition, a dog may be used to trail and retrieve unrecovered deer after legal hunting hours; however, no person accompanying a dog after legal hunting hours may carry a firearm of any sort.

Deer biologist, Charles Ruth, recently conducted research on the effectiveness of tracking dogs in recovering deer in South Carolina's dense coastal plain habitat. The particulars of 493 deer kills were recorded. Fifty-one percent (253) of the deer dropped where shot and 49 % (240) ran. Researchers believe trained dogs were responsible for the recovery of 15 to 20 % of the deer that ran. Dogs were credited with finding all 24 deer that displayed no evidence of being hit yet fell in thick brush within 152 yards of the shot. (22nd Southeast Deer Study Group meeting 1999).

****
****

DEER RESEARCH/BIOLOGY

Breeding Biology Study Southwest Louisiana

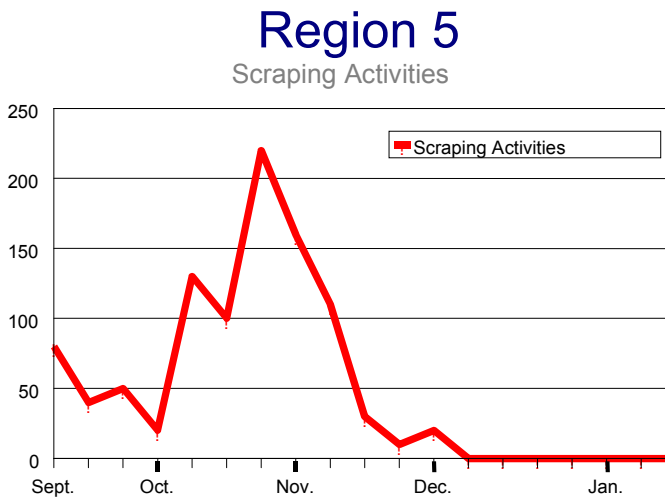
By John Robinette, Region V Supervisor

Southwest Louisiana consists of Acadia, Allen, Beauregard, Calcasieu, Cameron, Evangeline, Jefferson Davis, Vermilion and Vernon Parishes. The habitat ranges from coastal marshes, vast agricultural land and historical longleaf pine areas with scattered hardwood river and creek bottoms. Much of the longleaf pine area has been converted to large loblolly pine plantations. Sandy soils are of poor fertility, which have a great influence on deer populations and overall size of deer. For many years, there was no deer hunting in much of this area due to poor or no habitat for deer. As the deer habitat improved and deer populations increased, deer seasons were developed. Portions of southwest Louisiana developed into a Astill hunting only@ deer hunting zone (Area 3) in the early 1950's because it was thought that hunting deer with the aid of dogs would be detrimental to the newly developing deer herds. With the exception of some portions of Allen, Beauregard, Evangeline and Vernon Parishes that are located in the Area 2 deer hunting zone, "still hunting only" continues today. Deer populations are considered good across these habitats with deer size considered average. Mature bucks average 140 lbs. live weight with an occasional 200 pounder and mature females average 90 lbs. live weight.

Breeding studies from the 1960's showed that deer breed from September through January with the peak breeding occurring in mid-October. Breeding activities were studied again in the mid-1990's. Harvest data from Wildlife Management Areas and DMAP clubs, reproductive tracks from harvested does, and scraping activities by bucks were used to estimate breeding periods. Some interesting information was discovered but the study basically re-affirmed the 1960's findings.

Buck scraping behavior was monitored in Vernon Parish from mid-September through January, 1995-96. Motion sensor cameras were placed at active scrapes. The graph illustrates the recorded deer scraping activities, which are typical for much of southwest Louisiana. Many deer visited the scrape sites, but most occurred at night. Peak scraping activity occurred in mid- to late October and was over by mid-November.

The information gathered from the collection of female reproductive tracks showed breeding occurs from September to January, but the peak breeding occurred October 16-31. These data were obtained by measuring fetus lengths. The length of the fetus is used to determine age. Date of conception is determined by backdating from date of harvest. This technique allows biologists to determine breeding date with high degree of confidence.



Breeding dates in southwest Louisiana are spread out over several months due to several biological factors. Female deer go into an estrus cycle (heat) in the fall in response to declining daylength. Females ovulate and can become pregnant only during the next 24-36 hours. If she is not mated during this period, she will go into heat again in 28 days. She can have as many as three heat periods during a season. Distorted sex ratios (high females/low bucks) cause breeding to occur over several months. The gestation or pregnancy period for deer is about 200 days (<7 months). If does become pregnant in September or October, these deer give birth in early April or May. Doe fawns can be bred at six months, so these early born does can have their first estrus cycle from November through January. Does bred late in the year have

their off spring born June through August. Fawns retain their spots for four months. This explains why deer hunters see some does with large fawns and others with spotted fawns in the fall. Reducing doe numbers can shorten breeding period and assure deer are bred within the normal months of October and November in southwest Louisiana.

Overall, the doe/fawn ratios are high across southwest Louisiana and habitat conditions are stable to improving. Bucks weights and antler development have improved on many DMAP clubs. Quality Deer Management (QDM) has become a hot topic across the state, even in southwest Louisiana. However, deer hunters need to remember that deer quality is a product of the habitat and its soil fertility. Unfortunately, southwest Louisiana has some of the poorest soils in the state. Improving deer habitat or range conditions can be accomplished, but it usually takes lots of annual work and money. Body growth and antler development is greatly reduced on low quality habitat sites. Consequently, gains in antler mass and live weight are low. Restrictive buck regulations with respect to antlers would probably not accomplish very much in this region of the state. Buck antler quality can be improved through proper deer harvest and habitat improvements, but large numbers of Atrophy antler@ (Boone and Crockett) deer will never be produced in this part of Louisiana.

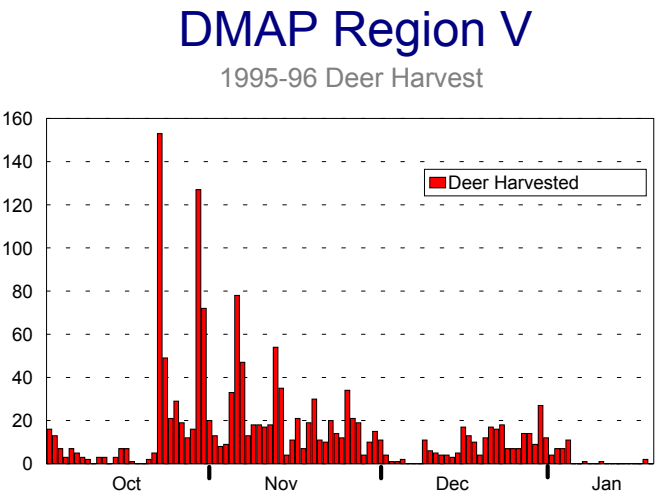
****

When the Best Time to Harvest a Deer?

By John Robinette, Region V Supervisor

When is the best time of the year to hunt and have a good chance to harvest a deer in southwest Louisiana?

Well, the first answer is when the deer season is open and you can go. Information gathered from over 250 DMAP clubs in southwest Louisiana, show that the bulk of the deer harvest occurs during the first couple of weeks of the deer season. This coincides with the rut, when deer are most active. Data further illustrates that higher deer harvest occurs on weekends rather than weekdays. Each deer harvest peak is on Saturday, but the peaks decrease as the season progresses. This is no great mystery, because many people hunt the opening weekend and can only hunt deer on weekends.



Daily Harvest both Area 2 and 3

Deer harvest declines later in the year for many reasons, here are few:

- Hunters have harvested deer and reduced the number of deer
- Deer become more nocturnal in their activities as the disturbance in the woods by hunters increase
- Rutting activities decrease
- The deer metabolism rate slows during winter months so they become less active
- Many hunters quit hunting deer after they harvest one or two deer (less hunters in the woods)
- Many hunters do not like to hunt in the colder wet weather late in the season.

There=s always a chance to harvest a deer any time during the deer hunting season in your area, but harvest data show that you will have a better opportunity early in the season.

****

Area 2 Breeding Study-Preliminary Report

By Jeremy White, ULM Biology and Larry Savage, DMAP Coordinator

Thanks to an excellent effort by DMAP volunteers over 1,000 reproductive tracts were collected in the first year of the Area 2 breeding study in northwest LA. Also included in this sample were

specimens donated at check stations by hunters on Bodcau, Jackson Bienville, Loggy Bayou, Georgia Pacific, and Union WMAs.

Preliminary results for all 14 Parishes are grouped. Overall, ovulation and breeding peaked the last two weeks in November. However, pockets of December breeding may be occurring in Bienville Parish and southern Bossier Parish. With another good sample from the 2001-2002 hunting season, data should be available from this two-year study to better delineate breeding dates regionally within this Area.

LDWF and the ULM Biology Department would like to extend a special thanks to everyone that assisted with last year's collection. With ULM's instructional video in hand, DMAP hunters were able to extract complete reproductive tracts with excellent precision. New clubs that wish to participate are encouraged to call Jeremy White (318-342-1793), Larry Savage (225-765-0823), or the Regional LDWF offices at Pineville, Monroe, and Minden. All supplies necessary for data collection will be provided. We really need additional clubs (DMAP or non-DMAP) to sample deer from Caddo, Lincoln, Natchitoches, Red River and Winn Parishes.

****

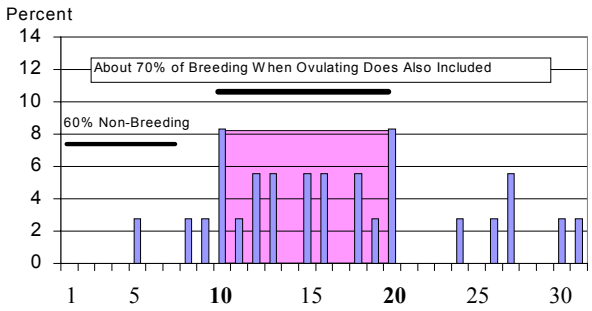
Area 6 (Upper Basin) Breeding Study

By David Moreland, Deer Program Manager

A study was initiated by the Deer Study Program and Region 6 Wildlife Division to investigate the breeding season of white-tailed deer in the upper Atchafalaya Basin which included the parishes of Avoyelles, Pointe Coupee, St. Landry, and Iberville. Most of this land is within Area 6, however, the upper portion of Avoyelles is in Area 1. The study involved the examination of ovaries from reproductive tracts collected during the hunting season on Grand Lake Rod and Gun Club in Avoyelles parish, the Red Diamond Hunting Club in Iberville parish, and the Sherburne Wildlife Management Area. About 130 reproductive tracts were collected from 1999 to 2001.

The breeding dates developed from additional does collected March-July 2000 and 2001 for this study indicate a later breeding season for deer in this area of Louisiana. Breeding ranged from Dec. 17- Feb. 22 with peak breeding occurring Jan. 10-20 (67% of deer that bred in January and 50% of the sample). Little breeding activity was recorded prior to or after January (< 20% of the activity). Fawning dates would range from July to mid-September based on these data with peak fawning during late July to early August.

Area 6 - Basin Study
January Breeding Chronology



Why is the breeding season later in this area of the state? One possible explanation is that the historical backwater flooding that this area would experience in late spring and early summer (May-July) may have, over time, moved the deer into this late breeding schedule. The Atchafalaya Basin historically was the floodplain for several major river systems including the Red River, Ouachita River, Tensas River, Black River, Atchafalaya River, and the Mississippi River. This floodplain served as a backwater area for these rivers and no doubt remained flooded long after the rivers had returned to normal water levels. If the does fawned in May or June, the fawn crop would have been eliminated by the flooding. The late breeding and subsequent late fawning may have developed in response to the flooding. According to records of LDWF, there were few deer releases made in the Basin. Consequently, the deer herd that has become established is from the original stock that occurred there. Another possible explanation is that this area of the state has historically maintained high deer populations. Research has documented that breeding occurs later in over-populated deer herds because does often are not bred during their 1st estrus cycle. The mid-late

February breeding dates documented likely either reflect this phenomena or late-born does not maturing until this time.

The ovulation rate determined by this study was 1.8 ova per doe. The percent implantation (the number of fetuses produced from the eggs ovulated) was 90%. The Area 4 study found an ovulation rate of 1.96 and 92% implantation. The breeding activity in this area results in a successful pregnancy for the majority of the adult does. Consequently the barren does which hunters frequently speak of is somewhat of a mythical creature. This study found an average of 1.6 fetuses per doe. In the Area 4 study there was an average of 1.9 fetuses per doe, which is exceptionally good. The productivity determined from this study is good.

Although overall productivity appears good, this study did find some problems concerning herd health in these parishes. Collections were conducted on various habitat sites and on land where different levels of deer management were being applied. Deer taken on areas with bottomland hardwood forests surrounded by agricultural crops exhibited the best herd health and had the highest productivity. Deer taken on predominately forested areas had lower body weights and lower productivity.

****

Photoperiod (Date) vs Moon Phase

Does Moon Phase Chronology Determine White-tailed Deer Breeding Dates? Authors – 15 Deer Biologists from Georgia, Michigan, Mississippi, Missouri, South Carolina, Texas, Maine and Minnesota. 24th Annual Meeting Southeast Deer Study Group, Feb. 2001, St. Louis, Missouri.

The Primary factors affecting deer breeding dates are:

- Photo period (season and latitude)
- Population demographics (sex and age structure)
- Genetics????
- Nutrition (deer condition)
- Other selective pressures (weather, insects, etc.)

Should moon phase be added to these? A cause and effect has not been demonstrated.

Despite considerable speculation, the potential influence of moon phases on white-tailed deer breeding chronology has not received serious scientific inquiry. Previous reports relating moon phases to breeding dates have represented only a few deer or were based on fawning dates, which are highly variable. We examined relationships of moon phase chronology and known estrous dates for over 100 captive deer from Georgia, Mississippi, South Carolina, and Virginia. Also, the known breeding dates for over 2,500 does from populations in South Carolina, Texas, Mississippi, Missouri, Maine, Minnesota, and Michigan (with between 3 and 19 years data for each population) were evaluated.

We compared conception dates among years based on Julian date (photoperiod) and moon phase.

Conclusions:

- Photoperiod is better than moon phase for predicting annual mean breeding dates for deer populations.
- Moon phase provides unreliable predictions regardless of latitude.
- Photoperiod is better than moon phase for predicting annual breeding dates of individual deer.

Bottom line: Moon phase has little influence on deer breeding (*conception*) at the individual deer or deer population level.

****
****

HABITAT

Monitoring Mast Production within a Forest

By Cody Cedotal, Forest Stewardship Biologist and Kenny Ribbeck, Forestry Section, Biologist Programs Manager

"Man, what's wrong? The deer are usually standing in line to get to this area!", the hunter wonders as he patiently waits on opening day of deer season while overlooking one of the most gorgeous white oak bottoms in the southeast. The spoiler in this situation is a combination of poor

scouting and poor acorn production. Mast production is of extreme importance to many wildlife species. Hard and soft mast from forest tree and shrub species are essential components of the diet of wildlife species such as songbirds, squirrels, Louisiana black bear, wild turkey, and especially white-tailed deer. These are just a few species that depend heavily on mast production within a forest. Deer utilize fruit such as acorns, berries, pomes, and drupes as a source of nutrients in their daily diet. Therefore, knowledge of the past, present, and future year's seed crop condition can be valuable when evaluating the health of a deer herd as well as making general population predictions.

A mast production survey is a quantitative means of comparing one year's seed crop to another year's seed crop. This can be done using several methods. A simple visual assessment is often the easiest and most cost effective. Visual assessments are not too labor intensive and produce the best results if performed by the same individual each year. Choosing the species and number of trees to be sampled each year is the first step in the process. This list will be site-specific to each landowner based on his or her objectives for the survey, size of the property, and the species diversity found on the property. For example, take a landowner with 40 acres in Tensas Parish, and with wildlife management, white-tailed deer as a primary objective. The species list for this property may consist of the following species: Nuttall oak, willow oak, water oak, overcup oak, bitter pecan, sugarberry, and common persimmon. (Note: This is just an example, the list may contain more or less species). This 40-acre property is relatively small and thus only 3-5 trees of each species are a sufficient sample. If the property were larger, say 10,000 acres, a larger sample (at least 10) of each species is required. Individual trees should be selected based on age/maturity, vigor, and in some instances, fruiting potential. Some species such as common persimmon are dioecious (separate male and female trees). Selected survey trees should be dispersed over the entire tract, marked and visited each year for assessment. Avoid establishing survey trees along roadsides and cleared rights-of-way. Factors that influence mast production, such as competition and moisture availability are different in these areas than those experienced 100 feet away in the forest interior.

In Louisiana, mast production surveys are performed during the last week of September, although the actual selection and marking of your sample trees can be done much earlier. At this time, the fruit or seed is nearly mature on most tree species and can easily be seen with 8x-12x binoculars. (American elm, which fruits in the spring, is an exception; therefore, make sure the biology of each species selected is considered beforehand.) Species in the red oak and pine families require two years for fruit to reach maturity. As a result, a forecast of the next year's seed crop also can be obtained. On red oak species, immature acorns appear as small knots on the tips of the twigs or "new" growth, while the current year's crop will be further down the twig on last year's growth. Immature cones on pine species are smaller than mature cones and remain unopened throughout the fall. Assessing future year's seed provides only a forecast. Many factors can influence the seed crop between the time of the survey and seed maturity.

Examining the branches and twigs for seed development assesses each tree. The tree is then graded based on the amount of seed present. Louisiana Department of Wildlife and Fisheries (LDWF) personnel perform annual mast production surveys on Wildlife Management Areas (WMAs). Trees are graded on a scale of 0-3, 0 meaning that there is no mast present and 3 denoting those trees which contain high mast concentrations. Once all individuals are assessed, an average can be obtained for each species. This process provides an index for comparison when repeated yearly. It is also beneficial to record any abnormal weather conditions, such as drought or excessive rainfall or abnormally late spring freezes, which may have occurred each year. This supplemental information can provide insight to why a particular year may or may not be productive for a certain species.

Information obtained from a mast production survey can assist a landowner when making wildlife management decisions. Researchers in the Southern Appalachians found that in oak forests, deer weights, antler development, and population dynamics are directly related to acorn abundance. A Missouri study reported that over a five-year period, acorns accounted for 42.5 % of the diet of deer. Thus, the ability to predict a poor mast crop months in advance is a valuable wildlife management tool. This kind of information could aid in the "age-old" decision of how many and what types of food plots to plant for white-tailed deer and other wildlife.

The above example is just one way in which a mast production survey can benefit a landowner. Mast production surveys can be implemented by anyone with a basic knowledge of trees and/or a good tree identification manual. If as a landowner, you find yourself pressed for time as many of us do, wildlife and forestry consultants are often able to perform the duty as well. Mast production is of utmost importance to the forest and its wildlife. It is the way most trees regenerate and serve as a primary food source for many wildlife species. By monitoring the productivity of your forest, a landowner promotes forest stewardship and gains valuable knowledge about one of the many ecological processes within a forest.

Following his own advice (article above), LDWF wildlife forester, Kenny Ribbeck harvested this quality buck during the 1st muzzleloader split of the 2000-2001 season by knowing the location of delta post oak acorns. Kenny was hunting McGowan Brake Club, a quality buck DMAP unit in Morehouse Parish. McGowan Brake is located in the Ouachita River bottom where the hardwood timber produced a poor acorn crop last year, ***except for delta post oak and water oak****. Delta post oak is a small white oak acorn highly preferred by deer. Backwater and soil type restricts the distribution of delta post oak to the high ridges along the banks of the Ouachita River (background of photo). Kenny was still-hunting this narrow band of post oaks when he killed this 4.5-year-old 18" eight point weighting 220 pounds. A stomach examination revealed browse and post oak acorns as the buck's primary food items.*

Kenny Ribbeck with post oak buck

****
****

PEOPLE

What You Don't See May Surprise You

By Wendell Smith, Region V Biologist

If you are not seeing as many bucks on your lease as you would like to, it does not necessarily mean that your deer density is low. This is the case for Bear Cove Hunting Club, a 3,900 acre DMAP cooperator located in northwest Calcasieu Parish. During the 2000-01 season, buck sightings were down. Hunters were simply not seeing much activity from their stands. As the membership grew nervous, a small group decided to set up motion cameras at various vantage points, predominantly looking over food plots, in order to ascertain whether or not bucks were indeed present on their lease.

The results of their research were shocking to the members. Motion cameras captured quite a number of good quality bucks with even more does frequenting food plots during the nighttime and early predawn. Their theory of "no bucks on the lease" soon vanished and the club members, anxiously awaited next years season.

Nocturnal movement is common with the onset of deer season. Disturbances created by hunters in the woods cause deer to become more concerned for their safety. Finally, with increased hunting pressure, adult deer will tend to revert to nighttime behavioral patterns. As we all know, hunting over food plots and feeders during this pattern of behavior will not yield many positive results. More traditional hunting techniques will have to be implemented. More time should be spent hunting thickets where deer trails and scrapes are present. Also concentrate on transition zones that offer escape cover because that is where they will be moving during times of high hunting pressure. Bear Cove Hunting Club as well as most other clubs will have to do just that in order to harvest some of these mature but wary bucks.

Photos Courtesy of Bear Cove HC

Photos Courtesy of Bear Cove HC

Photos Courtesy of Bear Cove HC

Photos Courtesy of Bear Cove HC

Note: Negative photo prints were all taken at night.

****

Quality Deer Abound at Outdoor Show

By David Moreland, Deer Program Manager

Over thirty Louisiana deer were measured at the Hunters Expo Outdoor Show, July 27-29, in Shreveport that will qualify for the Louisiana Big Game Recognition Program. David Moreland, Deer Program Manager, and Brian Martin, an official measurer from Natchitoches, coordinated the buck contest that was associated with the show. Over 60 deer heads were measured during the three-day event. Deer that qualified for listing in the recognition program had a minimum score of 130 points (typical class).

Twenty of these recognition deer were taken during the past two deer seasons. This is a good indication of the success that many hunting clubs and landowners are experiencing with their deer management programs. Ken Alford of Minden had the top Louisiana buck. Ken's buck scored 163 points on the Boone and Crockett scale, which will qualify him not only for the state record list (minimum score 160), but will also qualify for listing in the Boone and Crockett Recognition Program for North America. He killed this large 10 point buck on December 9, 2000 in Red River Parish. Rob Maxwell of Doyline won the Archery Division with a 150 class buck from Bossier Parish that was also killed on December 9.

A. W. Farley of Mansfield, LA killed a large nine point in DeSoto Parish, also on December 9, that scored 153 1/8 points. While Mr. Farley's buck was not the highest scoring buck at the show, he was the oldest hunter at the show with the biggest buck. Mr. Farley is 87 years young. Mr. Farley was hunting from a box stand on a pipeline on that cold December morning. He had just started his heater to warm himself up when he looked up and saw the buck standing on the right-of-way. After making a 250-yard shot, he got on his three wheeler, picked up the buck, and loaded it in his truck. Mr. Farley retired from a pipeline company at the age of 65 and decided to start deer hunting. As a lifelong resident of Louisiana, Mr. Farley has watched first hand the changes which have occurred in the state's deer population and he has now etched himself a place in the records program.

Another highlight of the show occurred when a buck that was killed in 1938 in Concordia Parish by W.E. Beazley was brought in for scoring. Jim Bonsall of Sibley literally found the old mount in a closet when he was doing some work for the grandson of the man who killed it. Jim recognized that it was a tremendous buck and brought it to the show. The deer had nine typical points and nine non-typical or abnormal points. It was scored as a non-typical whitetail and netted 214 4/8 points. A score of 195 qualifies for listing in the all-time Boone and Crockett Record Book for North American big game.

There is no doubt that Louisiana is producing its share of quality deer and based upon the deer which have been officially scored to date, the 2000/2001 deer season was very productive. Persons who think they have harvested a deer that will qualify for recognition should contact their local wildlife office who can put them in touch with an official measurer.

****

Thanks Tim !!!

By Larry Savage, DMAP Coordinator

LDWF would like to extend a special thanks to the Wildlife Division of Anderson-Tully Company and specifically to Assistant Wildlife Manager, Tim Evans. Tim has played a vital role in the installation and maintenance of DMAP computer records. In an effort above and beyond the call of duty, Tim has visited 5 of the 7 Regional LDWF offices to lend a hand with the conversion of history data (280,000 deer) to the new Deer Trax computer program.

For the past 15 years, ATCO Wildlife Managers have worked in tandem with LDWF biologists to provide landowners and leases along the Mississippi River in East Carroll Parish the best in deer management technical assistance. This collaborative effort led to the establishment of the East Carroll Association (ECA). Landowners, leases, biologists and enforcement agents are provided with a forum to exchange research data, educational information and recommendations at the annual ECA meeting. ECA members (15 clubs and 33,327 acres) now have one of the top quality buck management programs in the state (69% 3.5 years and older). This was accomplished without mandatory state antler restrictions, illustrating that QDM can work on a voluntary basis.

Tim Evans, Assistant Wildlife Manager, ATCO

****

3rd Beyond Becoming an Outdoors-Woman

Dana Permenter, LWDF Information & Education Section

The Louisiana Department of Wildlife and Fisheries held its 3rd Beyond Becoming an Outdoors Woman workshop in December 2000 on Lonewa Hunting Club, a 2,700 acre DMAP unit located in Ouachita Parish. Eight women were guided on a morning and evening doe-only hunt. Before the hunt, the women sighted in their rifles, were given hunter safety instructions, and then toured Lonewa. Although no deer were harvested, all of the women saw numerous quality bucks,

learned about different habitats, and experienced an educational and exciting weekend. Special thanks to the owners of Lonewa Hunting Club for giving these ladies the opportunity to hunt on such a well-managed and maintained facility. An extended thanks goes to the La. Wildlife Agents Association for their donation of hunter orange vest used by all the participants.

Lonewa owners, Freddie Nolan, Bishop Johnson, Larry Jones, and Bill Hoover host BOW.

****

DMAP Biologists Retire

Dave John went to work as a game biologist in 1972 in the New Orleans Region (District 8). He worked with all of the swamp and coastal parishes' DMAP cooperators when DMAP began in 1981. District 8 was combined with District 7 in 1989 and Dave continued to serve as the DMAP biologist for those parishes (about 75 clubs). In addition to his deer work, Dave assisted with development and management work on the old Bohemia WMA, Joyce WMA, and Manchac WMA. He was also an official measurer for the LA Big Game Recognition Program.

Lloyd Posey was employed as a Biologist in Regions 2 and 4 for several years during the mid-1990's to 2001 after transferring from the Education Section. He worked with about 100 DMAP clubs, primarily in North Mississippi Delta Parishes, collecting and analyzing harvest data and making management recommendations. His cooperative and personal approach was well-received by those clubs under his guidance and led to improvement in DMAP in the Regions. He also supervised management activities on Boeuf, Sicily Island Hills, Bayou Macon, Big Colewa, and Floye McElroy WMAs, which experienced growth in size and management objectives.

Dave John

Lloyd Posey

****

Hunters For The Hungry

Hunters for the Hungry, an organization that began seven years ago, encourages hunters and fisherman to share their excess bounty of wild game and fish with the less fortunate in the Greater Baton Rouge community. Since the group's beginning, more than 57,000 pounds of meat has been collected for distribution to the needy through the Greater Baton Rouge Food Bank.

Sportsmen can help in two ways. On September 23rd, the annual Clean Out Your Freezer Barbecue

will be held from 1:30 p.m. until 4:30 p.m. in the parking lot across from Alex Box Stadium on LSU's campus. Individuals are encouraged to donate leftover game and fish before the hunting seasons begin. Donors can enjoy barbecue and entertainment the day of the event. To donate freshly harvested game or fish throughout the year, call the Food Bank at 225/359-9940 for pickup. Hunters who donated an entire deer do not have to pay for processing. Processing information is available by calling the Food Bank.

The game and fish collected by *Hunters for the Hungry* is a valuable commodity for the Food Bank because frozen meats are not regularly donated. The Baton Rouge group would like to expand their mission statewide and is interested in talking with sportsmen in other areas who are interested in this worthy cause. For more information on how you can start a *Hunters for the Hungry* group in your community, call the Greater Baton Rouge Food Bank at 225/359-9940.

****
****

DEER TALES

White Queen

By Larry Savage, DMAP Coordinator

Mike O'Brien was shocked when his remote camera captured two frames containing a rare white deer on his Spring Branch Hunting Club in Caddo Parish. The 1,400-acre Spring Branch hunting club practices quality buck management and has low to moderate hunting pressure. Except for these photos, no one saw the white doe during the 2000-2001 hunting season (see *What You Don't See*).

Despite her odd coloration, she seems to be queen of this bait pile with her aggressive ears-back posture and hind-leg boxing stance. From the photos it is difficult to determine the source of her white coloration but she is most likely a "piebald" deer.

Several genetic conditions can cause white coloration in deer:

- Albino deer have white hair, pink skin and eyes due to a genetic mutation that causes a total absence of dark color pigments. As in most animals, this condition is very rare in deer.
- A white color-phase appears to be the dominant color trait for 20% of the Seneca Army Depot deer herd in New York. These white deer have brown eyes and traces of brown hair throughout their coat. The genetic mutation responsible for the white color phase is usually restricted to small geographical areas.
- Although uncommon, partially white "piebald" deer are the most common color abnormality reported by Louisiana hunters. The extent of white coloration on piebald deer varies from small spots on the legs to almost total body coverage (white queen). Nose, hooves and eyes have normal coloration. Along with white color, this genetic abnormality may cause short legs, a Roman nose, short jaws and curving spine. Many piebald fawns die shortly after birth and some of the ones that reach adulthood are sterile.

White Queen - Photos Courtesy of Mike O'Brien

At most hunting club meetings someone invariably wants to discuss the removal of "genetically inferior bucks". Proposals are discussed at great lengths on how to identify and remove "cull bucks". Deer identified as "genetically inferior" by some arbitrary club rule may, in fact, be genetically superior based on its resistance to some

disease or parasite. When it comes to genetics, Mother Nature makes very few mistakes and produces very few "culls". As a group, however, white deer do appear to be truly genetically inferior.

Regardless of the exact cause, white deer are rare for the simple reason they are not well adapted for life. As prey animals, white deer are at a distinct disadvantage and historically, were quickly removed from the gene pool by predators (including man). Nonetheless, six states (not Louisiana) have regulations protecting albino deer. These regulations are based on human emotions and aesthetics rather than sound biology.

If you encounter a rare white deer on your hunting lease, what should you do? As with any deer you harvest, the choice is yours. As for Mother Nature, she would drop the hammer. In the absence of Florida panthers and red wolves, you are the most significant large predator of Louisiana deer.

****

"Bucket Beater Buck" (or Flambeau Buck)

By Jack Burke, Port Hickey DMAP Unit, EBR Parish

I often hear unusual fishing stories from my buddies, but unusual deer stories are hard to come by. However, I encountered one that was so weird, my childhood tales of ghost stories was brought to mind. On the first Tuesday of the 2000 Black Powder season, I was hunting in a deep area between two lakes near the Mississippi River. As I was walking to my stand, I heard a noise that sounded like something from a horror movie. It sounded as if someone was hitting a bucket with a large stick, but I continued climbing into my stand.

Soon the noise stopped, but within minutes it began again some 70 yards away from me in a thicket and it continued for another ten minutes. I did not get down from my stand because whoever was doing this had to come by me or my friend, Jason, who was hunting at the opposite end of the lake. However, the terrible noise continued off and on all afternoon until dusk. When returning to the truck, I asked Jason what all the noise was about and why was someone beating a bucket. Needless to say, for the next four days, everyone thought that I was a bit weird as no one else had heard the noise.

Saturday morning was the opening of gun season and we headed back to the swamp, but I decided to hunt a different area this time. I got to my stand about 45 minutes before daylight, climbed up and settled down. Much to my surprise, the "bucket beater" started again. It seemed strange that someone would be making such a noise in the swamp before daylight. The noise seemed to be about a quarter mile away but getting closer at a rapid pace. It was quite dark and impossible to see anything. About ten minutes later, I heard my buddy, Jimmy Waddell, shoot in the direction of the "bucket beater". Shortly afterward, Jimmy's four-wheeler approached. He had a six-point buck in back of him and a broad grin on his face. There was my "bucket beater" with a large stick, nylon rope, washers and nuts and a duck decoy fastened securely around his antlers. The loud mystery noise was solved. Our only remaining task was to assure the lady living nearby that no one was trying to break into her garage, only a poor deer trying hard to free himself of his unwanted *flambeau*.

Bucket Beater / Flambeau Buck

****
****

NON-DEER WILDLIFE

Buzzard Boxes

By: Larry Savage, LDWF

Recently, a Union Parish deer hunter eagerly provided DMAP biologist, Jimmy Anthony, with the details of his "endangered species" discovery. According to his story, a "large eagle" was nesting in his box-stand. Now it is true that the number of Bald Eagles nesting in Northeast Louisiana has recently increased (five nests). But a box-stand in the middle of a pine thicket is not a likely location for our national symbol to setup house keeping. These large birds were either Turkey Vultures or Black Vultures. My Grandfather referred to Turkey Vultures simply as "Buzzards" and Black Vultures as "Carrion Crows" (namesake of Carencro, LA).

There is a noticeable difference in appearance and behavior between the two species. Turkey vulture heads are red with a heavy white beak. Blacks have black heads with slender white beaks. Turkey vultures glide with a rocking motion as their long wings form a V-shape. Blacks hold their short wings flat and alternate short glides with rapid wing beats.

Black Vultures are smaller and usually travel and feed in family groups (3-5). They often depend on their larger cousin, the Turkey vulture to locate and open (with its heavier beak) tough skinnned carcasses. Using aggressiveness and overwhelming numbers, Black Vultures frequently replace the solitary Turkey Vulture at a feeding site.

I was always fascinated by the ability of Turkey Vultures to locate small ribbon snakes killed by equipment in the Union Parish hayfields I worked as a youngster. As it turns out, they not only use the rising warm air thermals to carry them aloft each day, but also to bring the scent of rotting flesh up to be detected by their phenomenal sense of smell. The olfactory region of the Turkey Vultures brain is three times larger than that of the Black Vultures. Engineers have even used turkey buzzard gatherings to locate pipeline leaks by putting strong smelling gases through the pipes.

All vultures were once thought to be closely related to raptors (hawks and owls). However, recent DNA examination has revealed that New World vultures are more closely related to storks (Louisiana's Wood Stork or "Gourdhead").

Box-stands are a logical (from the buzzard's viewpoint) and increasingly common substitute for their favorite natural nesting site - the base of large hollow trees or stumps. Certainly, box stand construction is at an all-time high while the number of large hollow trees is declining due to intensive timber management. With open windows, a box stand becomes a large artificial cavity (like a large woodduck nest box). It provides growing vulture families with excellent protection from predators that are attracted to the

strong smell of carrion. Including 30 days of nest incubation and 10 weeks to flight, a vulture family may call your box home for most of the summer.

Only a Mothers love! Photo by Savage
Baby Blacks cozy in a Union Parish box-stand

Don't be surprised if you find a few buzzard treasures left behind. On a habitat survey in Pointe Coupee, I stumbled into what appeared to be the site of a strange voodoo ritual. Numerous bones, bits of armadillo shell and small animal skulls were neatly displayed on the ground in front of a large hollow sycamore stump. The stump contained two Black Vulture eggs. Other researchers have reported nests decorated with bright bits of trash, bottle caps, and broken glass.

Vultures are an important piece of Mother Nature's jigsaw puzzle. These reviled creatures actually provide a beneficial service by scavenging pathogen-contaminated carcasses (rabies etc.). They have a natural immunity to toxins (even botulism the most potent natural toxin). Specialized digestive enzymes in their cast-iron stomachs can neutralize bacteria and viruses. At first glance, their habit of "white washing" everything with feces (including their legs and nest site) appears to be incredibly filthy and seems to defy logic. However, germ-fighting enzymes from the stomach pass into their droppings, creating a unique antiseptic coating that helps protect them from their infected meals.

So, consider yourself lucky when you find the inside of your favorite box-stand "white washed" come deer season. It has been cleaned by nature's strongest disinfectant and you probably will not need any store-bought cover scents for the whole season. You have helped propagate one of Mother Natures most amazing creatures. And, don't forget that as migratory birds, vultures are protected by Federal regulations.

****

Anyone with interesting deer tales or photos are encourage to contact Larry Savage (see back page for contact information).

)))))

The DMAP Newsletter is printed twice a year to assist DMAP Cooperators with the intensive management of deer and habitat resources and to enhance the recreational enjoyment derived from these resources. It also updates cooperators with information on the administration of the program. **DMAP contact people that receive the newsletter directly are encouraged to pass it to as many of their members as possible.** Please forward any questions or comments about DMAP or the DMAP Newsletter to:

Larry Savage, DMAP Coordinator
David Moreland, Deer Research Leader
P.O. Box 98000
Baton Rouge, LA 70898
savage_jl@wlf.state.la.us or (225)765-0823
moreland_dw@wlf.state.la.us or (225)765-2344

Compiled and edited by:
Mike Olinde, Program Manager

Louisiana Department of Wildlife and Fisheries
P.O. Box 98000
Baton Rouge, LA 70898